[redacted] attribution on political [redacted] be carried out.

LEXA JAROSLAV

CZECHOSLOVAKIA/Chemical Technology - Chemical Products and Application. Synthetic Polymers. Plastics. H-29

Abs Jour : Ref Zhur - Khimiya, No 8, 1958, 27034

Author : Lexa Jaroslav, Skripen Jan
Inst :
Title : Effect of Low-Temperature Hardening on Bonding Strength of Phenol-Resorcinol-Formaldehyde Adhesives.

Orig Pub : Drevarsky vyskum, 1956, 1, No 1-2, 147-156

Abstract : The performed tests of wood (of conifers) bonded with phenol-resorcinol-formaldehyde adhesive FR-80 (I) at 5, 10 and 15°, have shown that final bonding strength does not depend on temperature of hardening but is determined by shearing strength of the wood (which, in the conducted tests, was of approximately 67 kg/cm^2). Determinations were made of the length of time during which the parts to be bonded should be maintained under pressure (to achieve a strength of 70% of ultimate):

Card 1/2

LEXA, Jaroslav

Strength of beams with webs from new materials. Drevarsky vyskum no.2:93-102 '62.

1. Statny drevarsky vyskumny ustav, Bratislava.

CZECHOSLOVAKIA/Chemical Technology. Chemical Products and Their Application. Synthetic Polymers. Plastics.

Abs Jour: Ref Zhur-Khim., No 13, 1958, 45115.

Author : Lexa Jaroslav.
Inst :
Title : A Comparison of the Aging of Urea and Phenol-Resorcinol Formaldehyde Adhesives.

Orig Pub: Drevarsky vyskum, 1957, 2, No 1, 74-80.

Abstract: Comparative tests of the strength of wood glued with urea-formaldehyde adhesive "Umacol Ts" (I) and with phenol-resorcinol-formaldehyde adhesive "FR 80" (II), after artificial aging (A) (cycle: kept in water at 20° for 8 hours, at -20° for 16 hours, dried at +60° for 24 hours) have shown that breakdown of samples prepared with II, after 40 cycles of A, occurs in the

52

Card : 1/2

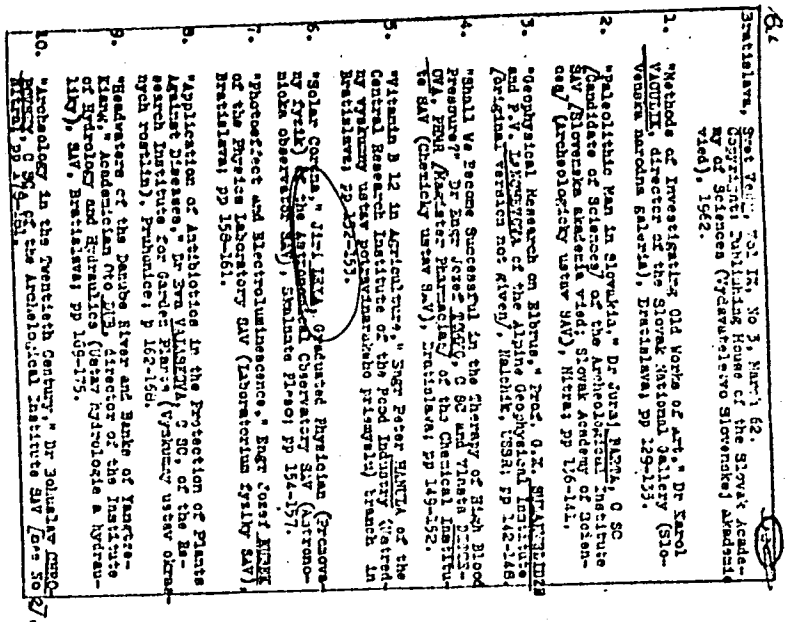
CZECHOSLOVAKIA/Chemical Technology. Chemical Products and Their Application. Synthetic Polymers. Plastics. H

Abs Jour: Ref Zhur-Khim., No 13, 1958, 45115

wood, and the decreased strength to shearing stress (by about 40% in comparison with the initial value) is the result of reduced strength of the wood. Samples prepared with I, after 3 cycles of A showed an 85% decrease in shear strength, and 25% of the samples became unglued; after 40 cycles of A all samples prepared with I became unglued. The conclusion is reached that in bonding of wood structures exposed to atmospheric action I cannot be used and it is recommended to use II.

Card : 2/2

LEXA, J.



Bratislava, Slovak Technical Publishing House of the Slovak Academy of Sciences (Vydavatelstvo Slovenskej Akademie vied), 1962.

1. "Methods of Investigation of Old Works of Art," Dr Karol VACURIK, director of the Slovak National Gallery (Slovenska narodna galeria), Bratislava, pp 129-133.

2. "Paleolithic Man in Slovakia," Dr Juraj LEXA, C SC (Candidate of Science) of the Archeological Institute SAV (Slovenska akademia vied; Slovak Academy of Sciences) (Archeologicky ustav SAV), Nitra, pp 136-141.

3. "Geophysical Research on Elbrus," Prof. O.Z. GRAMBERG and P.V. [illegible] of the Alpine Geophysical Institute (Original version not given), Nalchik, USSR, pp 142-148.

4. "Shall We Become Successful in the Therapy of High Blood Pressure?" Dr Ernst Josef [illegible], C SC and Vlasta [illegible], DrA, FRNP (Pharmaceutical Faculty) of the Chemical Institute SAV (Chemicky ustav SAV), Bratislava, pp 149-152.

5. "Vitamin B 12 in Agriculture," Engr Peter [illegible] of the Central Research Institute of the Food Industry (Ustredny vyskumny ustav potravinarskeho priemyslu) branch in Bratislava, pp 152-155.

6. "Solar Corona," Jiri LEXA, graduated Physician (Prirodovedec Jiri LEXA), the Astronomical Observatory SAV (Astronomicke observatorium SAV), Skalnate Pleso, pp 156-157.

7. "Photoeffect and Electroluminescence," Engr Josef MICEK of the Physics Laboratory SAV (Laboratorium fyziky SAV), Bratislava, pp 158-161.

8. "Application of Antibiotics in the Protection of Plants Against Diseases," Dr Eva VALENTOVA, C SC, of the Research Institute for Garden Plants (Vyskumny ustav okrasnych rastlin), Pruhonice, p 162-164.

9. "Headwaters of the Danube River and Banks of Tributaries," Academician Otto [illegible], director of the Institute of Hydrology and Hydraulics (Ustav hydrologie a hydrauliky), SAV, Bratislava, pp 169-175.

10. "Archeology in the Twentieth Century," Dr Jaroslav [illegible], C SC, of the Archeological Institute SAV (Archeologicky ustav SAV), Nitra, pp [illegible].

LEXA, Jaroslav, inz.

Prospects of using wood and wood structures in the building industry. Drevo 19 no. 4: 123-124 Ap '64

"Handbook of wood construction" by Robert von Halasz. Reviewed by Jaroslav Lexa. Ibid.:158

1. State Institute of Wood Research, Bratislava.

L 40820-66

ACC NR: AT6020509 SOURCE CODE: CZ/2514/65/000/051/0125/0129

39
35
14

AUTHOR: Lexa, J.

ORG: Astronomical Institute of the Slovak Academy of Sciences, Observatory Skalnate Pleso

TITLE: Photometry of coronal emission lines

SOURCE: Ceskoslovenska akademie ved. Astronomicky ustav. Publikace, no. 51, 1965. 3rd Consultation on Solar Physics and Hydromagnetics, Tatranska Lomnica, 13-16 October 1964, 125-129

TOPIC TAGS: solar corona, corona emission line, solar activity, line emission, coronal spectrograph, photoelectric microphotometer, light scattering, photograph/Zeiss coronograph

ABSTRACT: The author stresses the need for regular and dependable measurements of coronal emission lines, describes the Zeiss-type coronograph of the Skalnate-Pleso Observatory and the coronal spectrograph built there, and then analyzes

Card 1/3

L 46820-66

ACC NR: AT6020509

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discussion following the article, the author states that coronal observations were begun at Lomnicky station in March 1964, but not enough material has been assembled to contribute information on the asymmetrical shape of the corona. The author agrees that coronal measurements for light scattering are extremely important. Orig. art. has: 1 table. [GC]

SUB CODE: 03, 20, 14/ SUBM DATE: none/ OTH REF: 001/

Card 2/2 fc

L 45338-66 IJP(c) AT/GW

ACC NR: AP6024305 SOURCE CODE: CZ/0092/66/017/001/0001/0004

43
38
B

AUTHOR: Lexa, J.

ORG: Astronomical Institute of the Slovak Academy of Sciences, Skalnate Pleso

TITLE: Collision excitation of the state $2p^2P_{3/2}$ in the isoelectronic sequence B I

SOURCE: CSAV. Byulleten' astronomicheskikh institutov Chekhoslovakii, v. 17, no. 1, 1966, 1-4

TOPIC TAGS: quantum defect, quantum defect method. collision force, collision excitation, isoelectronic sequence, ELECTRON COLLISION, SOLAR ATMOSPHERE, ASTROPHYSICS

ABSTRACT: The method of quantum defects was used to calculate the collision force Ω required for excitation of the state $2p^2P_{3/2}$ in the isoelectronic sequence B I for the following ions: C II, N III, O IV, F V, Ne VI, Na VII, and P XI. The type of changes in the collision force Ω along the isoelectronic sequence is illustrated. Some expressions remain approximately constant along the sequence.

Card 1/2

JEDLICKOVA-BESTAKOVA, Zdenka; technicka spoluprace: LEXOVA, Eva

Sensitivity of Pseudomonas pyocyanaea to 14 antibiotics and furadantin. Cesk. epidem. 10 no.6:384-388 N '61.

1. Bakteriologicko-serologicke oddeleni nemocnice na Bulovce v Praze.

(ANTIBIOTICS pharmacology) (NITROFURANS pharmacol)
(PSEUDOMONAS pharmacol)

3580. EXPERIMENTAL STUDIES OF THE PROBLEM OF 'CONSENSUAL INFLAMMATION' - Experimentelle Untersuchungen zum Thema 'Konsensuelle Entzündung' - Ley H. and Smilay M. II. Med. Univ.-Klin., München - Z. GES. EXP. MED. 1959, 131/1 (22-29) Tables 4

The 'distant focal action', i.e. the consensual inflammation in a locus minoris resistentiae, was provoked in rabbits. By means of intrapleural injection of a copper sulphate solution a sterile pleurisy was provoked; the number and differentiation of the leucocytes in the pleural exudate and in the blood, and the electrophoretic protein pattern of the exudate and the serum were determined and recorded every day. After regression of the pleurisy a second inflammation was precipitated by injection of olobintin (oil of turpentine) into the gluteal musculature. By distant action, this caused renewed exudation in the pleura with increase of the leucocytes and of the α_2-globulins in the exudate. When a few weeks later, after the inflammatory signs of the pleura had completely regressed, the animals were again injected with oil of turpentine, another reaction of the previously inflamed pleura was also seen. No regular correlations between the variations of the leucocytes and the proteins in the exudate on the one hand and the serum proteins on the other could be observed.

Bienengräber - Rostock

ACCESSION NR: AP4043331 S/0197/64/000/007/0081/0084

AUTHOR: Leya, Yu.

TITLE: Determining the temperature of the gastric blood vessels by implantation of microthermistors

SOURCE: AN LatSSR. Izv., no. 7, 1964, 81-84

TOPIC TAGS: microthermistor, experimental medicine, gastric function, thermometer, indwelling thermometer, temperature measurement, blood vessels temperature, gastric circulation

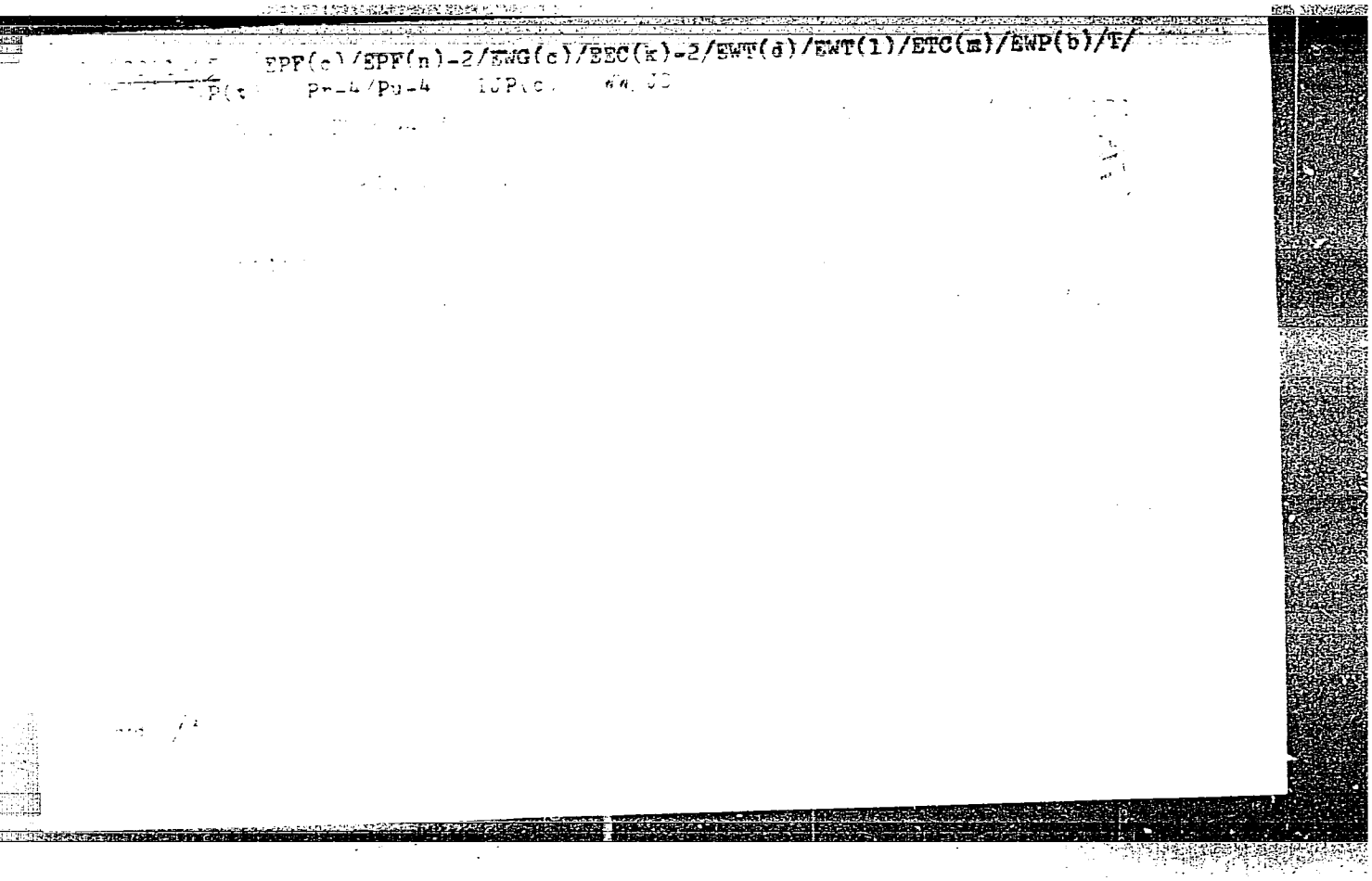
ABSTRACT: In order to determine whether heat is produced or absorbed by the muscles and glands of the stomach during gastric activity, it is necessary to measure the temperature of the afferent and efferent blood vessels in the conscious animal. The author describes a technique for accomplishing this in dogs using the EMG-1 microthermistors developed at the Eksperimental'naya baza Nauchno-issledovatel'skogo instituta eksperimental'noy khirurgicheskoy apparatury* i instrumentariya (Experiment Station of the Scientific Research Institute for Experimental Surgical Equipment and Instrumentation) in Moscow. These microthermistors are fixed in special plastic holders with a loop for passage of the blood vessel, and are

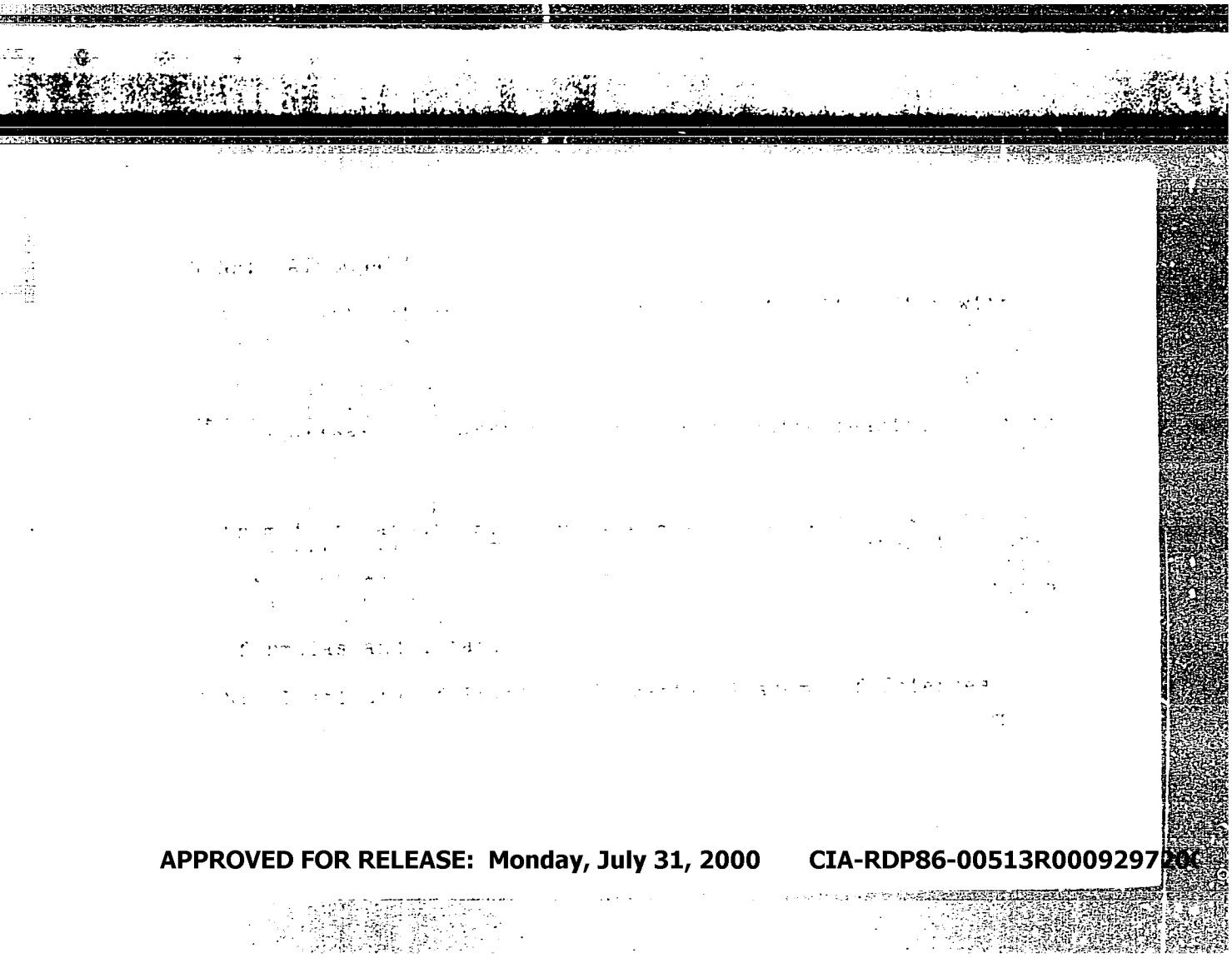
Card 1/2

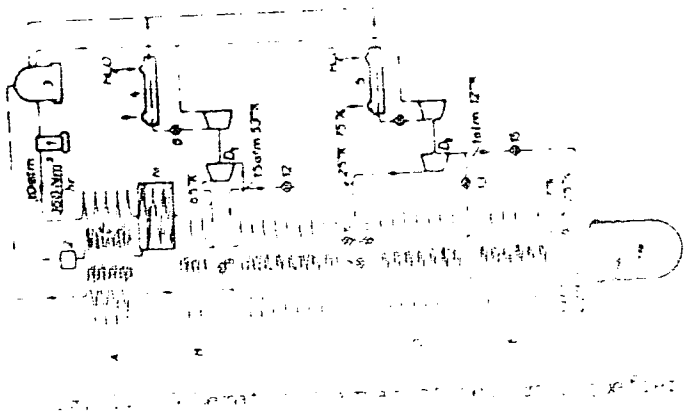
GAMBURG, D.Yu., kand. khim. nauk; LEYAKINA, T.M., inzh.; BELUGINA, L.N., inzh.

Reacting surface of solid fuels and surface of coal ashes. Teploenergetika 10 no.8:38-40 Ag '63. (MIRA 16:8)

1. Gosudarstvennyy proyektnyy i nauchno-issledovatel'skiy institut azotnoy promyshlennosti.
(Coal gasification)







LEYB, G.V., otv. za vypusk; MURAV'YEVA, N.D., tekhn. red.

[Manual on the establishment of technological norms in manoeuvering operations] Rukovodstvo po tekhnicheskomu normirovaniiu manevrovoi raboty. Izd.2., ispr. i dop. Moskva, Izd-vo "Transport," 1964. 130 p.
(MIRA 17:3)

1. Russia (1923- U.S.S.R.) Glavnoye upravleniye dvizheniya.

KRUPENIKOV, I.A.; LEYB, Kh.I.

Alluvial soils, their characteristics, utilization and place in the overall system of soil conservation. Okhr. prir. Mold. no.[illegible]25-33 '65. (MIRA 18:10)

S/081/63/000/004/028/051
B149/B186

AUTHORS: Gluzman, L. D., Leyba, V. S., Davidyan, D. N., Yefimenko, V. M.

TITLE: The preparation of diphenic acid from phenanthrene

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 4, 1963, 461, abstract 4N78, (Sb. nauchn. tr. Ukr. n.-i. uglekhim, in-t.", no. 13 (35), 1962, 144 - 156)

TEXT: In order to develop an industrial method for the preparation of diphenic acid (I), a detailed study was made of liquid-phase oxidation of both pure and commercial grade phenanthrene (II) with H_2O_2 and CH_3COOH (III). The reaction was performed under various conditions with successive alteration of the parameters affecting the course of the oxidation: ratio of II, H_2O_2 and III, concentrations of H_2O_2 and III, temperature, duration of H_2O_2 addition and duration of oxidation, and intensity of stirring during the addition of H_2O_2 and during auto-oxidation. The effect of various catalysts (such as $(NH_4)_2MoO_4$, $MgSO_4$, $MnSO_4$, $CuSO_4$, $KHSO_4$, CH_3COONa, $(CH_3COO)_2CO$, V_2O_5, chrome-nickel alum and others), of different sorts of steel proposed

Card 1/3

The preparation of diphenic acid...

for the construction of the pilot plant [1X18H9T (1Kh18N9T) and 1X18H12M9T (1Kh18N12M9T)], of the quality of the initial II and its admixtures were investigated. The optimum conditions were found to be: ratio (in parts by weight) II:III:H_2O_2 (30%) = 1:5:3.2, temperature 90-92°, duration of oxidation ~2hrs. The period of addition of H_2O_2 has no effect on the yield of I. Stirring during the addition of H_2O_2 and during the reactions must be slow. The reaction can be achieved without catalysts (the ones listed above have no positive effect) with a 75-80% yield of I. The presence of anthracene (10-20%) and carbazole (2-5%) admixtures in II has no appreciable effect on the yield and quality of I. Optimum conditions for the isolation of I were found. The most complete isolation and highest degree of purity was achieved by: distillation of III under vacuum at 75% to 1/3 of the volume and cooling of the residue to 15°. The crystals which separate are washed on the filter with 10% solution of III. The yield of I (with m.p. ~228°) is 65-68%. The solubility of I in III, H_2O, CH_3COCH_3, dioxane, CH_3OH, C_2H_5OH, C_6H_6 and xylene was determined over the range 20-90° (the results are given in the form of graphs). Of the organic solvents, I is least soluble in C_6H_6 at

The preparation of diphenic acid...

25° (10.16 g); the solubility is twice this in xylene. A method of regeneration of III has been developed. [Abstracter's note: Complete translation.]

Card 3/3

GOROKHOV, V.; LEYBCHIK, S.

New tires for the "Moskvich" car. Za rul. 18 no.7:14-15 Jl '60. (MIRA 13:10)

1. Glavnyy konstruktor Moskovskogo shinnogo zavoda (for Gorokhov).
2. Rukovoditel' sektora proyektirovaniya shin Moskovskogo shinnogo zavoda (for Leybchik).
(Automobiles--Tires)

GOROKHOV, V.V; PAKHOMOV, V.T.; LEYBCHIK, S.G.

Tire 5.60-15 with removable tread rings and a radial spacing of cord threads in the carcass designed for the "Moskvich-407" automobile. Kauch.i rez. 19 no.9:49-53 S '60. (MIRA 13.10)

1. Moskovskiy shinnyy zavod.
(Tires, Rubber)

LEYBCHIK, S.G.

Preparation and assembly shops of the tire industry. Kauch.i rez. 20 no.3:41-43 Mr '61. (MIRA 14:3)

1. Moskovskiy shinnyy zavod.
(Tires, Rubber)

LEYBEL', S.A. (Kiyev, ul. Chkalova, d.42, kv.6)

Early surgical treatment of closed pelvic fractures with rupture of the male urethra. Nov.khir.arkh. no.6:75-77 N-D '57. (MIRA 11:3)

1. Urologicheskoye otdeleniye (zav. - kand.med.nauk T.I.Yanushevskiy) Kiyevskoy gorodskoy klinicheskoy bol'nitsy im. Oktyabr'skoy revolyutsii Nauchnyy rukovoditel' raboty - zasl. deyatel' nauki prof. A.A.Chayka.
(PELVIS--FRACTURE) (URETHRA--RUPTURE)

L'YBLL',S.A., Cand Med Sci--(diss) "Lacerations of the male urethra in closed fractures of the pubic and sciatic bones." Kiev,1958. 15 pp (Min of Health UkSSR. Stalin State Med Inst im A.M.Gor'kiy), 150 copies (KL,44-58,125)

LEYBEL', S.A.

Results of treating traumatic stricture of the urethra at the Chaika Urological Clinic from 1944-1954. Urologiia 23 no.3:15-18 My-Je '58 (MIRA 11:6)

1. Iz urlogicheskoy kliniki imeni prof. A.A. Chayki (zav. - prof. A.A. Chayka) Kiyevskogo meditsinskogo instituta i urologicheskogo otdeleniya (zav. - kand.med.nauk T.I. Yanushevskiy) Kiyevskoy gorodskoy klinicheskoy bol'nitsy imeni Oktyabr'skoy revolyutsii.
(URETHRA, stenosis
traum., management (Rus))

LEYBEL', S.A.

Perforation of the bladder by foreign body (fountain pen) with formation of an intra-abdominal abscess. Urologiia 23 no.6:58 N-D '58.
(MIRA 11:12)

1. Iz urologicheskoy kliniki imeni A.A. Chayki (zav. - prof. A.A. Chayka) Kiyevskogo meditsinskogo instituta i urologicheskogo otdeleniya Kiyevskoy gorodskoy klinicheskoy bol'nitsy imeni Oktyabr'skoy revolyutsii.

(BLADDER, for. body
fountain pen causing perf. & form. of abdom. abscess (Rus))
(ABDOMEN, abscess
caused by perf. of bladder wall by fountain pen (Rus))

LEYBEL', S.A. (Kiyev, ul. Chkalova, d. 42, kv. 6)

Results of the A.A. Chaika method of surgery in extensive traumatic strictures of the urethra [with summary in English]. Vest.khir. 81 no.12:51-55 D '58. (MIRA 12:2)

1. Iz urologicheskoy kliniki imeni zasluzhennogo deyatelya nauki prof. A.A. Chayki (zav. - prof.A.A. Chayka) i urologicheskogo otdeleniya Kiyevskoy gorodskoy klinicheskoy bol'nitsy imeni Oktyabr'skoy revolyutsii (gl. vrach - D.D. Sergiyenko).
(URETHRA, stenosis
traum., surg., Chaika technic (Rus))

LEYBEL', S.A.

Preservation of pregnancy after severe trauma. Akush. i gin. 35 no.2:100-101 Mr-Ap '59. (MIRA 12:5)

1. Iz urologicheskoy kliniki imeni A.A.Chayki (zav. - prof. A.A.Chayka) i urologicheskogo otdeleniya Kiyevskoy gorodskoy klinicheskoy bol'nitsy imeni Oktyabr'skoy revolyutsii (glavnyy vrach D.D.Sergiyenko).
(WOUNDS AND INJURIES, in pregn.
severe, with preservation of pregn. (Rus))
(PREGNANCY, compl.
severe inj., preservation of pregn. (Rus))

SUVOROV, N.N.; NIKIFOROVA, O.K.; SOKOLOVA, L.V.; KOVYLKINA, N.F.; LEYBEL'MAN, F.Ya.

New synthesis of Reichstein's substance "S." Med.prom. SSSR 14 no.12: 9-12 D '60. (MIRA 13:12)

1. Vsesoyuznyy nauchno-issledovatel'skiy khimiko-farmatsevticheskiy institut imeni S. Ordzhonikidze.
(CORTICOSTERONE)

SUVOROV, N.N.; MOROZOVSKAYA, L.M.; LEYBEL'MAN, F.Ya.; YERSHOVA, L.I.

Improved method of obtaining progresterone and oxime of Δ 5, 16-pregnadien-3β-ol-20-one acetate from solasodine. Med. prom. 14 no.7:31-33 Je '60. (MIRA 13:8)

1. Vsesoyuznyy nauchno-issledovatel'skiy khimiko-farmatsevticheskiy institut imeni S. Ordzhonikidze.
(PROGESTERONE) (OXIMES)

SUVOROV, N.N.; SOKOLOVA, L.V.; YAROSLAVTSEVA, Z.A.; OVCHINNIKOVA, Zh.D. Murasheva, V.S.; LEYBEL'MAN, F.Ya.

Steroids. Part 15: Synthesis of cortisone-acetate from 3 -pregnane-17 -diol-11,20-dione. Zhur. ob. khim. 31 no. 11:3715-3718 N '61. (MIRA 14:11)

1. Vsesoyuznyy nauchno-issledovatel'skiy khimiko-farmatsevticheskiy institut imeni S. Ordzhonikidze.
(Cortisone) (Pregnanediol)

LEYBEL'MAN, M. (g.Kursk)

In the Kursk Magnetic Anomaly. NTO no.6:20-22 Je '59.
(MIRA 12:9)
(Kursk magnetic anomaly)

DOROSHENKO, Ivan Maksimovich; LEYBEL'MAN, Mikhail Yakovlevich;
MERMAN, A.L., red.; SEVRYUKOV, P.A., tekhn.red.

[Kursk Province in the seven-year plan] Kurskaia oblast' v semiletke. Kursk, Kurskoe knizhnoe izd-vo, 1960. 91 p.
(MIRA 14:1)

(Kursk Province--Economic policy)

LEYBEL'S, N.; AKOPYAN, M.

Automation in casting shops. NTO 2 no.5:15-17 My '60.
(MIRA 14:5)

1. Predsedatel' liteynoy sektsii oblastnogo pravleniya Nauchno-tekhnicheskogo obshchestva mashinostroitel'noy promyshlennosti (for Leybel's). 2. Zamestitel' predsedatelya liteynoy sektsii oblastnogo pravleniya Nauchno-tekhnicheskogo obshchestva mashinostroitel'noy promyshlennosti (for Akopyan).
(Automation) (Voronezh Province—Founding)

LEYBEL'S, N.V., inzhener.

Rapid repairs of hot open hearth furnace crowns. Lit.proizv. no.5: 29-30 My '56. (MLRA 9:8)
(Open-hearth furnaces)

LEYBEL'S, M.V., inzhener.

Using open-hearth furnace waste gases for the heating of drying kilns. Lit.proizv. no.6:31 Je '56. (MLRA 9:8)
(Open-hearth furnaces--By-products) (Drying apparatus)

LEYBENTULLER, L.I.

The GD-28 pipe-cutting machine. Biul.tekh.-ekon.inform.Gos.nauch.-issl.-inst.nauch. i tekh.inform. no.8:30-31 '62. (MIRA 15:7)
(Pipe cutting—Equipment and supplies)

LEYBENZON, A.S.

Protein-free culture medium for the growth of fibroblasts from human embryonic tissue. Vop.virus. 4 no.3:370-372 My-Je '59. (MIRA 12:8)

1. Virusologicheskaya laboratoriya Vostochnokazakhstanskoy oblastnoy sanitarno-epidemiologicheskoy stantsii.
(TISSUE CULTURE,
protein-free medium for fibroblast growth in human embryonic tissue (Rus))

LEYBENZON, A.S.; LUCHSHEVA, Z.F.

Preliminary data on the culturing of the causative agents of tularemia, brucellosis, and plague on a medium with native fermentative hydrolysate aminopeptide-2. Report No. 1. Zhur. mikrobiol. epid. i immun. 31 no.2:102-103 D '60. (MIRA 14:6)

1. Iz Vostochno-Kazakhstanskoy oblastnoy sanitarno-epidemiologicheskoy stantsii.

(TULAREMIA) (BRUCELLOSIS) (PLAGUE)
(BACTERIOLOGY--CULTURES AND CULTURE MEDIA) (PEPTIDES)

LEYBENZON, A.S.

Semisynthetic nutrient medium for determining the toxicity of diphtheria microbes in vitro. Lab.delo 7 no.7:55-56 Jl '61.
(MIRA 14:6)

1. Vostochno-Kazakhstanskaya oblastnaya sanitarno-epidemiologicheskaya stantsiya.
(BACTERIOLOGY—CULTURES AND CULTURE MEDIA)
(CORYNEBACTERIUM DIPHTHERIAE)

LEYBENZON, A.S.

New nutrient media for the cultivation of some pathogenic microbes.
Zdrav. 21 no.2:60-63 '61. (MIRA 14:3)

1. Iz Vostochno-Kazakhstanskoy oblastnoy sanitarno-epidemiologicheskoy stantsii (glavnyy vrach - Yu.A.Anikin).
(BACTERIOLOGY—CULTURES AND CULTURE MEDIA)

LEYBENZON, A.S.; LUCHSHEVA, Z.F.

Nutrient culture medium for the cultivation of tularemia microbes based on a soviet industrial hydrolysate, aminopeptide. Report No.2. Zhur.mikrobiol., epid. i immun. 32 no.11:120-126 N '61.
(MIRA 14:11)

1. Iz Votochno-Kazakhstanskoy oblastnoy sanitarno-epidemiologicheskoy stantsii.

(PASTEURELLA TULARENSIS)
(BACTERIOLOGY—CULTURES AND CULTURE MEDIA) (PEPTIDES)

LEYBENZON, A.Ye.; DUDENKO, S.I.; STEPANOVA, S.L.

Role of nonspecific influences on antigen stimulation. Zhur. mikrobiol.epid. i immun. 28 no.7:154 Jl '57. (MIRA 10:10)

1. Iz Gosudarstvennogo kontrol'nogo instituta imeni Tarasevicha.
(ANTIGENS AND ANTIBODIES)

LEYBENZON, ARKADIY Y.FINOVICH

632.3
.L61

PRODUTSENTY VESHCHESTV ANTIBIOTICHESKOY PRIRODY SREDI MIKROFLORY LECHEBNYKH GRYAZEY I MOREY (PRODUCERS OF SUBSTANCES OF AN ANTIBIOTIC NATURE AMONG THE MICROFLORA OF MEDICINAL MUDS AND SEA WATER, BY) A. YE. LEYBENZON I A. F. ZAK. MOSKVA, 1958.

126 P. ILLUS., TABLES.

AT HEAD OF TITLE: GOSUDARSTVENNYY NAUCHNYY K NTROL'NYY INSTITUT, AND MINISTERSTVO ZDRAVOOKHRANENIYA SOYUZA SSR.

"LITERATURA": P. 123-125

DIDENKO, S.I., kand.med.nauk, red.; LEYBENZON, A.Ye., prof., red.

[Data of an experimental and clinical study of the preparation "peloidin"] Materialy eksperimental'no-klinicheskogo izucheniia preparata "peloidin." Pod red. S.I.Didenko i A.E.Leibenzona. Moskva, M-vo zdarvookhraneniia SSSR, 1958. 157 p. (MIRA 13:1)

1. Gosudarstvennyy nauchnyy kontrol'nyy institut imeni L.A. Tarasevicha. 2. Direktor Gosudarstvennogo nauchnogo kontrol'nogo instituta imeni L.A.Tarasevicha (for Didenko). 3. Gosudarstvennyy nauchnyy kontrol'nyy institut imeni L.A.Tarasevicha (for Leybenzon).

(EARTHS, MEDICAL AND SURGICAL USES OF)

LEYBENZON, B.I., gornyy inzhener.

Using ultrasonics for mine shaft profiling. Shakht. stroi. no.8: 19-22 Ag '57. (MLRA 10:9)

1. Gosudarstvennyy proyektno-konstruktorskiy institut po proyektirovaniyu novykh mashin i mekhanizmov dlya gornoprokhodcheskikh rabot.

(Mine surveying)
(Ultrasonic waves--Industrial applications)

YEFREMENKO, V.I.; LEYBENZON, B.I.; TALYZIN, V.V.; FINOGENOV, K.G.; ERGLIS, K.E.

Radioactive method of controlling grouting operations. Shakht. stroi. no.4:6-8 Ap '59. (MIRA 12:5)
(Grouting) (Radioisotopes--Industrial applications)

LEYBENSON, S.I.

Experimental studies of certain mechanical standard systems for controlling the verticality of mine shafts. Trudy TSNIIPodzemshakht-stroia no.3:83-90 '64. (MIRA 18:9)

LEYBENZON, B.I., inzh.

Controlling the verticality of mine shafts by the ultrasonic location method. Shakht.stroi. 9 no.4:8-10 Ap '65.

(MIRA 18:5)

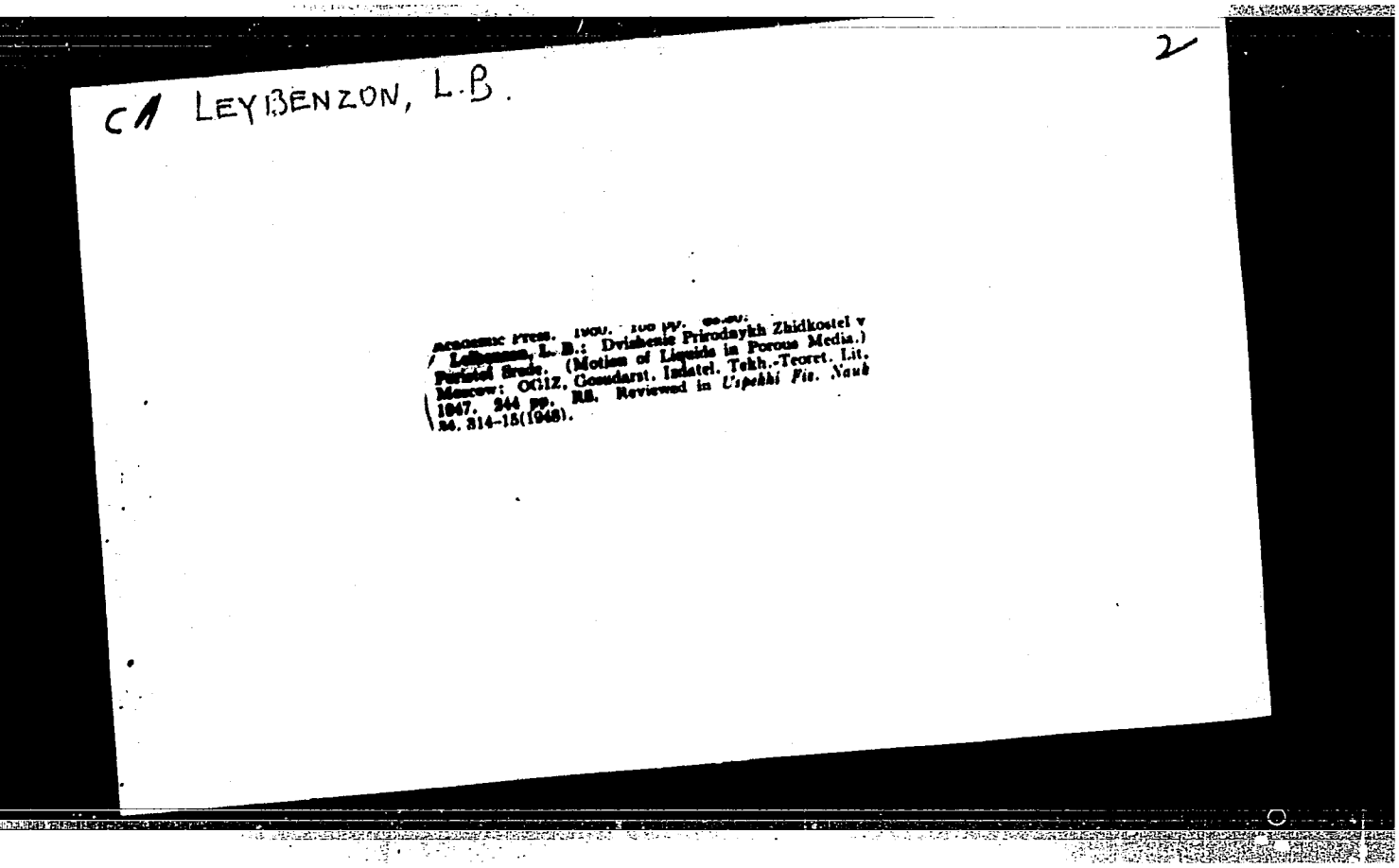
1. TSentral'nyy nauchno-issledovatel'skiy i proyektno-konstruktorskiy institut podzemnogo i shakhtnogo stroitel'stva.

LEYBENZON,D.

Tool for making nails. Prom.koop. no.7:42-43 Jl'55. (MLRA 8:11)
(Nails and spikes)

LEYBENZON, I.M.; SHMELEV, N.A., professor; MYASNIKOV, A.L., professor.

Demonstration of a case of allergic myocarditis. Terap.arkh. 25 no.2: 89 Mr-Ap '53. (MLRA 6:5)
(Tuberculosis) (Heart--Diseases)



CA LEYBENZON, L.B.

2

Academic Press. 1950. 100 pp. $3.50.
Leibenzon, L. B.: Dvizhenie Prirodnykh Zhidkostei v Poristoi Srede. (Motion of Liquids in Porous Media.) Moscow: Gostekhizdat, Gosudarst. Izdatel. Tekh.-Teoret. Lit. 1947. 244 pp. Rub. Reviewed in *Uspekhi Fiz. Nauk* 34. 314-15(1948).

LEYBENZON, L.S. (Deceased)

Geophysics

See ILC

ARBUZOV, A.Ye., akad.; VAVILOV, S.I., akad.; VOL'FKOVICH, S.I., akad.; KOCHINA, P.Ya., akad.; LANDSBERG, G.S., akad.; LEYBENZON, L.S., akad.; PORAY-KOSHITS, A.Ye., akad.; SMIRNOV, V.I., akad.; FESENKOV, V.G., akad.; CHERNYAYEV, V.I., akad.; KAPUSTINSKIY, A.F.; KORSHAK, V.V.; KRAVKOV, S.V.; NIKIFOROV, P.M.; PETROV, A.D.; PREDVODITELEV, A.S.; FRISH, S.E.; CHETAYEV, N.G.; CHMUTOV, V.K.; SHOSTAKOVSKIY, M.F.; KUZNETSOV, I.V., red.; MIKULINSKIY, S.R., red.; MURASHOVA, N.Ya., tekhn.red.

[Men of Russian science; essays on prominent persons in natural science and technology: Mathematics, mechanics, astronomy, physics, chemistry] Liudi russkoi nauki; ocherki o vydaiushchikhsia deiateliakh estestvoznaniia i tekhniki: matematika, mekhanika, astronomiia, fizika, khimiia. Moskva, Gos. izd-vo fiziko-matem. lit-ry, 1961. 599 p. (MIRA 14:10)

1. Chleny-korrespondenty AN SSSR (for Kapustinskiy, Korshak, Kravkov, Nikiforov, Petrov, Predvoditelev, Frish, Chetayev, Chmutov, Shostakovskiy). (Scientists)

LEYBENZON, R.A.

Working capacity of hypertensives in industry. Ter. arkh. 23 no.1: 100-101 Jan-Feb 51. (CIML 20:8)

1. Candidate Medical Sciences.

LEYBENZON, S.A.

AUTHOR: Leybenzon, S.A. 130-10-2/18

TITLE: Leader of Ukrainian Electro-metallurgy (Pervenets Ukrainskoy elektrometallurgii)

PERIODICAL: Metallurg, 1957, No.10, pp. 3 - 4 (USSR)

ABSTRACT: The author outlines the development of the various plants at the 'Dneprospetsstal'" Works. He mentions technical advances made there, including the adoption of an electric furnace capable of rotation through 37° in both directions, the 40-ton furnaces in the third melting shop, the development of vacuum treatment of steel in the ladle, top blowing with oxygen in the furnace. He gives data on increased productivity and energy consumption per worker at the works. There is one photograph of the wrecked rolling shop during the war.

AVAILABLE: Library of Congress.

Card 1/1

25(1) PHASE I BOOK EXPLOITATION SOV/2325

Leybenzon, Semen Abramovich

"Dneprospetsstal'"; istoriya i peredovoy opyt zavoda ("Dneprospets-stal'"; History and Advanced Practice of the Plant) Moscow, Metallurgizdat, 1958. 54 p. 2,000 copies printed.

Reviewer: A.S. Nikolayev; Eds.: B.S. Shur, and I.I. Pinegin; Tech. Ed.: M.R. Kleynman.

PURPOSE: This booklet is intended for engineers, technicians, foreman, and workers in heavy industry.

COVERAGE: The booklet presents in simple form the history, development, and recent achievements of the "Dneprospetsstal'" Plant in the Ukraine. An outline is given of the construction of departments in the plant, the begining of operations, and the general organization of production facilities. A brief description, accompanied by a diagram, is given of the new arrangement of steel casting in vacuum. The advantages of oxygen blowing are also mentioned. The material is presented in three parts. In Part I,

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which covers the period from the early Thirties to 1939, the author speaks of the first electric furnaces, rolling mills, and forging hammers installed at the plant. Part II deals with the World War II period and the evacuation of the plant to Siberia. Part III describes the return of the plant to the Ukraine, the resumption of steel production, and the adoption of the latest methods and developments in metallurgy. Five Soviet references are given in the form of foot notes.

TABLE OF CONTENTS: None given.

AVAILABLE: Library of Congress (TN642.R9L36)

GO/ec
10-9-59

Ley Benzon, S. A.

18.3200

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SOV/133-60-1-14/30

AUTHORS: Shul'te, Yu. A. (Doctor of Technical Sciences, Professor), Tregubenko, A. F., Smolyakov, V. F., Maksimenko, V. D., Frantsev, V. P., Leylenzon, S. A., Garevskikh, I. A.

TITLE: Electrometallurgy. Electroslag Remelting of Ball Bearing and Structural Chromium-Nickel-Tungsten Steels

PERIODICAL: Stal', 1959, Nr 1, pp 45-50 (USSR)

ABSTRACT: This is a description of a study of technology of electroslag remelting of ShKh15, ShKh15SG, and 18KhNVA steels. The chemical composition of these steels (%) is as follows: ShKh15, C, 0.95-1.10; Mn ≤ 0.4; Si ≤ 0.35; Cr, 1.30-1.60; S ≤ 0.020; P ≤ 0.027; Ni ≤ 0.3; Cu ≤ 0.25; ShKh15SG, C, 0.90-1.10; Mn, 0.20-0.40; Si, 0.15-0.35; Cr, 1.30-1.65; S ≤ 0.020; P ≤ 0.027; Ni ≤ 0.3; Cu ≤ 0.25; and 18KhNVA, C, 0.14-0.21; Mn, 0.25-0.55; Si, 0.17-0.37; S ≤ 0.03; P ≤ 0.035; Cr, 1.35-1.65; Ni, 4.00-4.50; W, 0.8-1.20. Yu. V. Latash and B. I. Maksimovich of the

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ASSOCIATION: Zaporozh'ye Machine Building Institute and "Dneprospetsstal'" Plant (Zaporozhskiy mashinostroyitel'nyy institut i zavod "Dneprospetsstal'")

Card 8/8

S/133/61/000/003/005/014
A054/ A033

AUTHROS: Tregubenko, A. F.; Speranskiy, V. G.; Leybenzon, S. A.

TITLE: Electroslag melting of steel

PERIODICAL: Stal', no. 3, 1961, 233 - 238

TEXT: An electric furnace designed by the institut elektrosvarki im. Ye. O. Patona (Institute of Electric Welding im. Ye. O. Paton) for the re-melting of steel produced in the conventional arc furnace under slag and for the casting of ingots in water-cooled crystallizers has been in operation since May, 1958. The original furnace was re-designed (Figure 1), with an increased capacity, by A. Ya. Kovalenko and consists of two sets of crystal-lizers, (3 in each set) which operate alternatively: in one set smelting takes place, in the other prepartions are made. The furnace operates with 2250 kw, 6 - 7 ka and 50 v. In the crystallizers (formerly made of copper, now of steel) circular (300 mm in diameter) or square ingots (310 x 310 mm) are smelted: the weight of the former is 700 - 950 kg and that of the latter 1100 kg. Cooling water is fed into the crystallizer and bottom plate at 3.5 - 5.0 atm pressure, depending on the water temperature. The bottom of

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Electroslag melting of steel . . .

the crystallizer is made of copper. There is a support to hold the electrode which in this process functions as the charge. In the most recent construction the crystallizer is made of aeamless tubes. This solved the welding problems and eliminated the development of a crust during smelting which impurifies the metal. Two kinds of fluxes are used in the electroslag smelting process: 1) a solid flux to conduct the electric current, 2) an working flux for the smelting process, usually of the АНФ-6 (ANF-6) type containing about 65 % CaF_2; 30 - 35 % Al_2O_3, 3 - 6 % CaO and maximum 1 % ($MgO+SiO_2+FeO$). A mixture consisting of the ПАМ (PAM) aluminum magnesium powder and the operating flux can also be used as electro-conducting flux. When the furnace is prepared for operation, the inoculator of the crystallizer, made of СТ.2 and СТ.3 (St.2, St.3) steel discs 295 mm in diameter and 35 mm in height is first fixed to the copper plate, next the inoculator is sprayed with 400 g electro-conducting flux, then the gap between the inner wall of the crystallizer and the electrode is filled with the working flux (23 kg for 700 kg ingots). The transformer is adjusted manually during the first 10 - 15 minutes and, after the stabilization of the process, the furnace is switched over to automatic operation. The smelting process is finished by switching off the mechanism feeding the electrode. After the electric current supply

Electroslag melting of steel

is stopped, the ingot is cooled for some time, then it is discharged from the furnace mechanically. In this phase of the process the ingot has a temperature of about 1000°C at the top, while it is cooled to a dark grey colour at its base. In 1959 the electroslag remelting furnace (producing 700 - 720 kg ingots) passed the following operation characteristics: Productivity, (including preparations) 460 kg/h; specific electric power consumption 1250 kwh/t; specific electrode consumption 1.02 t/t; specific ANF-6 flux consumption 35 kg/t; specific cooling-water consumption 240 cum/t (approx.). The effect of electroslag remelting has been investigated for 1Х18Н9Т (1Kh18N9T) stainless steel, ЭИ654 (EI654) high-alloy austenite steel containing aluminum and titanium, 18ХНВА (18KhNVA) and 38ХМЮА (38KhMYuA) structural steels, Р18 (R18) and Р18М (R18M) high-speed steels and Х28 (Kh28) and 2Х13 (2Kh13) grade steels. For all steels it was found that electroslag smelting improves the quality of the metal considerably. Irrespective of the electrode applied, the metal obtains a dense macrostructure almost free from porosity; non-metallic impurities are decreased and the inclusions occurring are not arranged in aggregations. The mechanical properties of the metal are also improved. Since the inclusions are not aggregated, flakes become

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Electroslag melting of steel

also less frequent. In order to prevent losses in titanium caused by electroslag melting, all impurities must be carefully removed from the electrodes used for 1Kh18N9T steel. The sulfur content of this steel decreasses by about 40 % compared with its initial content. Even the nitride-inclusions and those of the ferrite-phase disaggregate during electroslag smelting and are arranged uniformly over the cross-section of the ingot. This improves the piercing property of the tube blanks made of this steel. In the EI654 type high-alloy austenite steel electroslog melting decreases the H content from 7 - 10 to 4.5 - 6.0 cm^3/100 gr and improves the ductility of this steel, making piercing easier. In the 38KhNVA steel electroslag melting improves the structure, fracture, and mechanical properties, and eliminates spotty liquation. In the Kh28 type steel electroslag melting improves the ductility in hot condition, due to the decrease in non-metallic inclusions. It seems advisable to establish special shops for electroslag melting and to reconstruct the electrofurnaces, so that ingots of larger dimensions can be remelted. There are 4 figures and 2 tables.

Card 4/6

22315

S/133/61/000/004/004/015
A054/A127

183200

AUTHORS: Shul'te, Yu. A., Doctor of Technical Sciences, Professor; Garevskiy, I. A., Engineer; Leybenzon, S. A., Engineer; Maksimenko, V. D., Engineer; Tregubenko, A. F., Engineer; Speranskiy, B. S., Engineer; Frantsov, V. P., Engineer, and Smolyakov, V. F., Engineer

TITLE: Nature of flaws in steel ingots produced by the electro-slag method

PERIODICAL: Stal', no. 4, 1961, 322 - 326

TEXT: The technology of electro-slag remelting was established by the Institut elektrosvarki im. Ye. O. Patona (Institute of Electrowelding im. Ye. O. Paton). A three-phase electroslag furnace (2250 kW) which can smelt ingots 750 kg in weight and 300 mm in diameter simultaneously in 3 crystallizers has now been in operation for more than 2 years. In order to improve the process, the nature of the flaws occurring in electroslag-remelted steel was studied and tests were carried out on ingots produced on an industrial scale, whereas an A-550 (A-550) laboratory plant, designed by

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Nature of flaws in steel ingots produced by...

the same institute was used for the purpose of reproducing the defects. The crystallizer of this equipment was 100 mm in diameter, 600 mm in length, the ingots weighed 30 kg, remelting took about 35 minutes (at 40 v and 1.2 ka). In this process the ingot surface is not in contact with the atmosphere. The slag bath is rising at the same rate at which the ingot is smelting, while a thin slag layer forms on the crystallizer wall, the relief of which is closely reproduced by the ingot surface. Three zones can be distinguished in the smelting process. A non-uniform structure, having a serrated surface develops in the bottom zone during heating of the ingot. The metal contains slag inclusions and flux, at the place of inoculation. This zone could be reduced by applying a thermite mix (20% saltpeter, 20% aluminum and magnesium powder, 60% AH-ϕ-6 /AN-F-6/ flux) at the exact centre of the electrode. The slag bath develops more rapidly in the heating period when maximum power is applied. By controlling the feed of the electrodes manually, any fluctuations in current intensity could be eliminated. At about 1800°C a homogeneous slag bath is formed, while at the same time the smelting of the second zone of the ingot also starts; the thickness of the slag lining on the crystallizer wall decreases to 1.0 - 1.5 mm. In this phase

Nature of flaws in steel ingots produced by...

the electric system of the crystallizer is switched to automatic operation. The electrode is fed into the slag bath at a rate corresponding with the optimum current intensity. Under these stabilized conditions the slag bath is regularly rising, leaving a smooth lining behind. The third, liquid-slag zone is the actual smelting zone, both in respect of electric power and physico-chemical effects. Here takes place the smelting of the electrode and the refining of the metal flow. The height and volume of this zone are the most important factors of the entire process. The slag content for all three zones was established. The greater the crystallizer-diameter, the less slag was found in the lining (Table 1). The ingot surface in the second zone is flawless, smooth and does not require any finishing. This is one of the greatest advantages of this method, which, however, can be obtained only by a stable electric system, faultless operation of the automatic furnace control as the slightest disturbance in any of these factors results in surface defects. These appear in the macrostructure and are similar to the impurities usually found in electrosteel. In 1959 data were compiled for ball bearing steel, showing the relation between the crystallizer height, diameter and amount of defects (Table 2). Thus, the greater the diameter of the crystallizer, the more flaws could be observed in

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the ingot. As regards the smelting time, it was found that the first and the last periods produced the greatest number of defects. Metallographic study of faulty rods revealed sickle and spider-shaped cracks, lenticular inclusions, differing in colour from the flawless parts of the metal, in some templates occupying more than 50% of the total surface. In microhardness tests it was observed that in the impurified zones the hardness coefficients displayed a wide range of values. It could also be observed that the flaws penetrate fairly deeply, indicating that the factors impurifying the casting are active a long time (Fig. 5). Petrographic tests proved that the inclusions are similar to those forming in free crystallization and contain mainly calciumfluoride globules, needle-shaped corundum crystals, aluminum-calcium compounds. Among the impurities slag-inclusions, 1 - 2 mm in size, were found in irregular arrangement. Inclusions were present in the low-temperature zones of the metal, promoting the mixing of slag particles in the liquid metal. The lower the crystallization temperature, the more flaws were found. The viscosity of the metal increases due to intensive cooling and this promotes the capturing of slag particles. Based on the tests with the A-550 equipment the permissible minimum length of the

Nature of flaws in steel ingots produced by...

bottom part of the ingot was defined. It was also possible to prevent the formation of impurities in the top of the ingot by ensuring stable electric operational conditions until the end of the process. The optimum power was obtained with 55 v instead of 40 and 6 ka. However, even the optimum electric parameters only yield flawless casting provided the power conditions are very stable throughout the entire process. By applying these new electrical parameters the impurities could be decreased from 31.6% to 0.7%. In some tests Ya. I. Spektor took part.

Card 5/8 5-

SHUL'TE, Yu.A., doktor tekhn.nauk, prof.; GAREVSKIKH, I.A., inzh.; LEYBENZON, S.A., inzh.; MAKSIMENKO, V.D., inzh.; TREGUBENKO, A.F., inzh.; SPERANSKIY, B.S., inzh.; FRANTSOV, V.P., inzh.; SMOLYAKOV, V.F., inzh.

Defects in steel ingots made by the electric slag process. Stal' 21 no. 4:322-326 Ap '61. (MIRA 14:4)
(Steel ingots—Defects)
(Steel—Electrometallurgy)

S/032/61/027/004/008/028
B110/B215

AUTHORS: Shul'te, Yu. A., Garevskikh, I. A., Maksimenko, V. D., Leybenzon, S. A., Frantsov, V. P., Smolyakov, V. F., and Stetsenko, N. A.

TITLE: Scale for estimating nonmetallic inclusions in electroscoriaceous steel

PERIODICAL: Zavodskaya laboratoriya, v. 27, no. 4, 1961, 422-424

TEXT: A high-purity metal is obtained by the electroscoriaceous method of melting. Inclusions in electroscoriaceous steel differ from those in ordinary steel in kind and character of their distribution. Traditional scales, therefore, cannot be used for the correct estimation of impurities, especially oxidic inclusions. The examination of nonmetallic inclusions in a large number of melts of electroscoriaceous steel allowed the development of a new scale (Fig.) in which the total area of disoriented inclusions, their number within the field of vision, and the admissible dimensions of the individual inclusions are taken into account (Table 1). Oxidic and sulfidic inclusions are shown in the photographs

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of the new scale. Large globular, oxidic inclusions are measured with an eyepiece micrometer. The degree of impurities in the ground face is estimated according to the field of vision with the largest number of impurities. The authors tested the scale and controlled 682 specimens of 200 electroscoriaceous melts of ball-bearing steel types ШХ15 (ShKh 15) and ШХ15СГ (ShKh15SG). At the same time, the specimen was estimated by the traditional ГОСТ 801-47 (GOST 801-47) scale (Table 2). The indices of estimation by both scales differed but slightly, although the estimations of the individual melts differed largely from the control. Examinations of nonmetallic inclusions showed that the scale can also be used for other steels melted out by the electroscoriaceous method and for estimating melts in the vacuum arc containing the same type of inclusions. Ye. I. Boyko's collaboration is mentioned. [Abstracter's note: Complete translation]. There are 1 figure, 2 tables, and 2 Soviet-bloc references.

ASSOCIATION: Zaporozhskiy mashinostroitel'nyy institut (Zaporozh'ye Machine-building Institute); zavod "Dneprospetsstal'" ("Dneprospetsstal'" Plant)

PHASE I BOOK EXPLOITATION SOV/6007

Leybenzon, Semen Abramovich, and Aleksandr Fedorovich Tregubenko

Proizvodstvo stali metodom elektroshlakovogo Pereplava (Electroslag Melting of Steel) Moscow, Metallurgizdat, 1962. 237 p. Errata slip inserted. 3200 copies printed.

Ed. of Publishing House: S. I. Venetskiy; Tech. Ed.: A. I. Karasev.

PURPOSE: This book is intended for technical personnel and skilled workmen of the metallurgical and machine-building industries, and for workers of scientific research and planning institutes. It may also be useful to students at schools of higher technical education.

COVERAGE: The book deals with a "new" and "advanced" method of steelmaking developed by the Electric Welding Institute im. Ye. O. Paton. This method, designated as the "electroslag melting of consumable electrodes in copper, water-cooled molds" was first

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OKOROKOV, G.N., kand.tekhn.nauk; BOYARSHINOV, V.Ya., kand.tekhn.nauk; SHAMIL', Yu.P. inzh.; LEYBENZON, S.A., inzh.; PAKHOMOV, A.I., inzh.; POLYAKOV, A.I., inzh.

Improving the macrostructure of ShKh15 steel made in a vacuum arc furnace. Stal' 23 no.1:30-34 Ja '63. (MIRA 16:2)

1. Dnepropetrovskiy staleplavil'nyy zavod vysokokachestvennykh i spetsial'nykh staley i TSentral'nyy nauchno-issledovatel'skiy institut chernoy metallurgii.
(Steel—Electrometallurgy) (Vacuum metallurgy)

LEYBENZON, S. A.

ACCESSION NR: AP4041869 S/0133/64/000/007/0640/0642

AUTHOR: Gabuyev, G. Kh.; Yel'tsov, K. S.; Shul'te, Yu. A.; Mikhaylov, P. A.; Garevskikh, I. A.; Leybenzon, S. A.; Tsivirko, E. I.; Medovar, B. I.; Latash, Yu. V.; Frantsov, V. P.; Fakhomov, A. I.; Kaganovskiy, G. P.; Voinov, S. G.; Shalimov, A. G.; Kalinnikov, Ye. S.; Smolyakov, V. P.; Kosoy, L. F.

TITLE: Improvement of the quality of electroslag-melted ball-bearing steel

SOURCE: Stal', no. 7, 1964, 640-642

TOPIC TAGS: ball bearing steel, electroslag melted steel, high purity steel, steel electroslag melting

ABSTRACT: Several variants of electroslag melting have been tested in an attempt to improve the quality of ball-bearing steel. The analysis of electroslag-melted steel showed that nitrides and carbonitrides constitute the greatest part (up to 75%) of the nonmetallic inclusions present in the steel. These nitrides derive from the initial material. The electroslag process eliminates large nitrides over 20μ in diameter, but does not eliminate the smaller ones.

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ACCESSION NR: AP4041869

Therefore, the nitrogen and titanium contents of the initial metal must be reduced to a minimum. This can be done, for example, by refining the metal in the ladle with synthetic slag. Electroslag melting of open-hearth steel refined with synthetic slag eliminated all the inclusions larger than 10μ and reduced the number of smaller inclusions by more than 50% and the nitrogen and oxygen contents to 0.0053 and 0.0020%, respectively. To produce ultra-high purity ball-bearing steel, the double electroslag melting was applied with a combination of various fluxes. The use of ANF-6-ANF-6 fluxes in double electroslag melting or of AN-29-ANF-6 fluxes produced best results. Ultra-high purity steel, fully satisfying requirements for critical ball bearings, was obtained. Orig. art. has: 2 figures.

ASSOCIATION: Dneprospetsstal' (Dneprospetsstal' plant); Zaporozhskiy mashinostroitel'nyy institut (Zaporozh Machine-Building Institute); Institut elektrosvarki im Ye. O. Patona (Electric Welding Institute); TsNIICHM

Card 2/3

LEYBENZON, Semen Abramovich

[Electric slag remelting and metal quality] Elektroshlakovyi pereplav i kachestvo metalla. Moskva, Metallurgiia, 1965. 61 p. (MIRA 18:6)

GABUYEV, G.Kh.; YEL'TSOV, K.S.; SHUL'TE, Yu.A.; MIKHAYLOV, P.A.; GAREVSKIKH, I.A.; LEYBENZON, S.A.; TSIVIRKO, E.I.; MEDOVAR, B.I.; LATASH, Yu.V.; FRANTSOV, V.P.; PAKHOMOV, A.I.; KAGANOVSKIY, G.P.; VOINOV, S.G.; SHALIMOV, A.G.; KALINNIKOV, Ye.K.; SMOLYAKOV, V.P.; KOSOY, L.F.

Improving the quality of electric-slag-refined bearing steel. Stal' 24 no.7:640-642 Jl '64. (MIRA 18:1)

1. Zavod "Dneprospetsstal'", Zaporozhskiy mashinostroitel'nyy institut, Institut elektrosvarki im. Ye.O.Patona i TSentral'nyy nauchno-issledovatel'skiy institut chernoy metallurgii imeni I.P.Bardina.

L 21655-66 EWT(m)/EWP(t) JD

ACC NR: AR6011593 SOURCE CODE: UR/0137/65/000/012/B019/B019

AUTHOR: Gavranek, B.; Gladkiy, D.; Leybenzon, S.; Onishchenko, Ye.; Shakhmeyster, B.; Chalyy, V.

ORG: none

68 B

TITLE: Automatic non-contact regulator for controlling the electric cycle of furnaces for flux remelting

SOURCE: Ref. zh. Metallurgiya, Abs. 12B131

REF SOURCE: Elektrotermiya. Nauchn.-tekhn. sb., vyp. 44, 1965, 17-19

TOPIC TAGS: automatic regulation, metal melting, metallurgic furnace, electric relay, power amplifier, electrode, electric transformer, electronic circuit

TRANSLATION: The Zaporozh'ye Affiliate of the Institute of Automation and the Dneprospetsstal' Plant have developed a non-contact regulator for controlling the electric cycle for flux remelting in consumable-electrode furnaces. The regulator maintains working current of electrode with an accuracy of 1.5% of nominal. An input signal proportional to electrode current is received by current transformer and fed to a comparison circuit where it is compared with a voltage which is proportional to the setting of the electrode working current. The difference between these voltages is fed to a semiconductor relay which operates a magnetic power amplifier. This amplifier controls the motor which moves the electrode. A

Card 1/2 UDC: 669:621.365:681.1/.2

L 21655-66

ACC NR: AR6011593

schematic diagram of the regulator is given together with an explanation of its operation. The regulator has been in continuous operation at the Dneprospetsstal' plant for a year and a half. During that time, the unit has been used in making more than 1,000 melts which have shown that the regulator is reliable in operation, simple to use, and eliminates metal rejects due to excessive deviations in electrode current during melting. V. Sidorov. [JPRS]

SUB CODE: 09, 13

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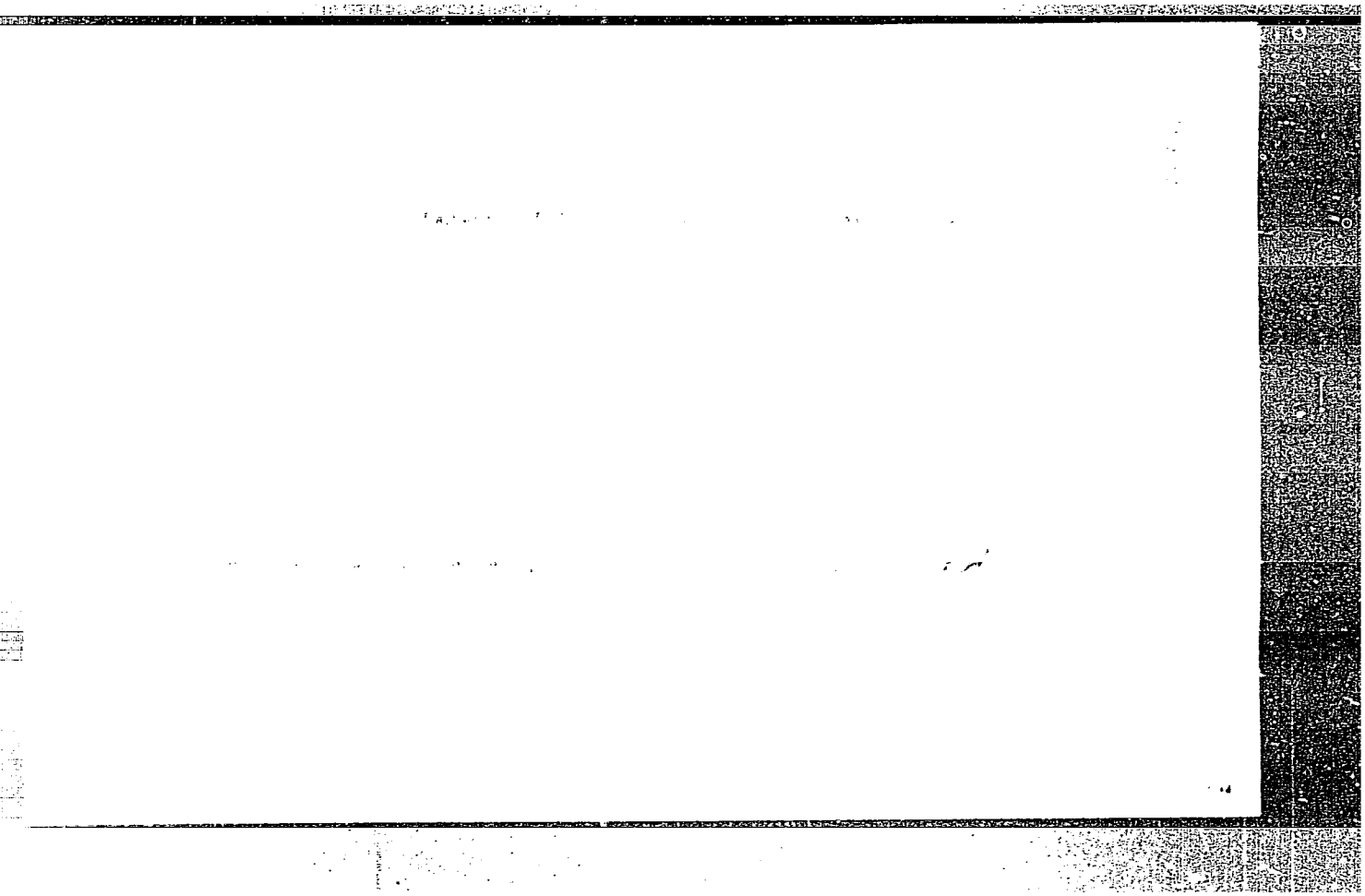

APPROVED FOR RELEASE: Monday, July 31, 2000 CIA-RDP86-00513R000929720(

LEYBENZON, Z. L.

USSR/Mathematics - Complex Variables Jul/Aug 52

"Ring of Continuous Functions on a Circumference," Z. L. Leybenzon

"Uspekh Matemat Nauk" Vol VII, No 4 (50), pp 163, 164

Demonstrates the sufficient criterion for the equality (A, F)=C, where (A, F) designates the min closed subring of ring C contg A and element F, and C is the normed ring of all continuous functions defined on the circumference L of circle /t/=1 on the complex plane; also A is the min closed subring of ring C contg the function f(t)=t.

225T65

Mathematical Reviews
Vol. 14 No. 11
Dec. 1953
Analysis

Leibenzon, Z. L. **Investigation of certain properties of a continuous point transformation of an interval onto itself which have application in the theory of nonlinear oscillations.** Akad. Nauk SSSR. Prikl. Mat. Mech. 17, 351-360 (1953). (Russian)

The author deals with rather superficial properties of a mapping $x^* = f(x)$ of the unit-segment into itself. He generally assumes (without stating it explicitly) that $f'(x)$ exists. He also considers pairs of points x, x^* such that $x^* = f(x)$, $f(x) = x^*$. No relationships with oscillations are discussed in the paper.

S. Lefschetz (Princeton, N. J.).

USSR/Mathematics - Fourier series representation FD-1170

Card 1/1 Pub. 118-11/30

Author : Leybenzon, Z. L.

Title : Ring of functions with absolutely convergin Fourier series

Periodical : Usp. mat. nauk, 9, No 3(61), 157-162, Jul-Sep 1954

Abstract : The author considers a ring W of functions represented by absolutely converging Fourier series $f(t) = \sum a_m \cdot \exp(imt)$ (summed from $m=-\infty$ to $m=\infty$). He calls the real function $w(t)$ admissible if $f(t) \in W$ implies $f(w(t)) \in W$. In the present article the author demonstrates the following theorem: If the admissible function $w(t)$ possesses an absolutely continuous derivative (e.g. if $w(t)$ iw twice differentiable), then it has the form $w(t)= nt+a$, where n is an integer and a is a constant. One reference: S. S. Banakh [Banach], Kurs funktsional'nogo analizu [Course of functional analyis], Kiev, 1948.

Institution :

Submitted : May 25, 1953

AUTHOR: LEYBENZON, Z. L. 20-3-4/52

TITLE: On the Estimation of the Characteristic Numbers of Selfadjoint Operators (Ob otsenke sobstvennykh chisel samosopryazhennykh operatorov)

PERIODICAL: Doklady Akademii Nauk SSSR, 1957, Vol. 117, Nr. 3, pp. 371-373 (USSR)

ABSTRACT: Let A be a selfadjoint operator in the Hilbert space H with a discrete spectrum. If $x \in H$, then we have $x = \sum_i x_i e_i$, where all $x_i \neq 0$ and the normed eigenfunctions e_i of A correspond to the different characteristic numbers $\lambda_1, \lambda_2, \ldots$. In the totality M of the functions $F(\lambda)$ for which the series $\sum_i |F(\lambda_i)|^2 |x_i|^2 = \|F\|^2$ converges, let be introduced the scalar product

$$(F,G) = \sum_i F(\lambda_i)\overline{G(\lambda_i)}\,|x_i|^2.$$

Lemma: Let $F(\lambda)$, $\phi(\lambda) \in M$ and $\|\phi\| > 0$. Then there exists a characteristic number λ of the operator A such that

Card 1/3

$$\phi(\lambda) \neq 0 \text{ and } \frac{|F(\lambda)|}{|\phi(\lambda)|} \leq \frac{\|F\|}{\|\phi\|}.$$

Theorem: Let

$$\varepsilon = \frac{\|(a_0 + a_1\lambda + \ldots + a_{n-1}\lambda^{n-1})(\lambda - \alpha)\|}{\|a_0 + a_1\lambda + \ldots + a_{n-1}\lambda^{n-1}\|} =$$

$$= \frac{\left[\sum_{\nu,\mu=0}^{n-1} (p_{\nu+\mu+2} - 2\alpha p_{\nu+\mu+1} + \alpha^2 p_{\nu+\mu}) a_\nu \bar{a}_\mu\right]^{1/2}}{\left[\sum_{\nu,\mu=0}^{n-1} p_{\nu+\mu} a_\nu \bar{a}_\mu\right]^{1/2}},$$

where $a_0, a_1, \ldots, a_{n-1}$ is arbitrarily complex and α is arbitrarily real. Then on the interval $[\alpha - \varepsilon, \alpha + \varepsilon]$ there lies one of the characteristic numbers of A.

If the elements $A^\nu x \in H$ for $0 \leq \nu \leq n$ are known, then the numbers $p_{\nu+\mu} = (A^\nu x, A^\mu x)$ can be computed and the interval

Card 2/3

$[\alpha-\varepsilon, \alpha+\varepsilon]$ can be determined.

Theorem: Let the polynomial $D_m(\lambda)$ be defined by the recurrence formulas

$$\|D_{m-1}\|^2 = (\lambda^{m-1}, D_{m-1}), \qquad a_m = \frac{(\lambda^m, D_{m-1})}{\|D_{m-1}\|^2}$$

$$D_m(\lambda) = \lambda D_{m-1}(\lambda) + (a_{m-1}-a_m)D_{m-1}(\lambda) - \frac{\|D_{m-1}\|^2}{\|D_{m-2}\|^2} D_{m-2}(\lambda).$$

Let $r_1, r_2, \ldots, r_m$ be m different real roots of $D_m(\lambda)$. Then there exist characteristic numbers $\lambda^{(1)}, \ldots, \lambda^{(m)}$ of A such that

$$|\lambda^{(k)} - r_k| \leq \frac{\|D_m\|}{\left\|\frac{D_m(\lambda)}{\lambda - r_k}\right\|} \leq \frac{\|D_m\|}{\|D_{m-1}\|}, \qquad k=1, \ldots, m.$$

A further theorem relates to the case that the initial element x is chosen in the neighborhood of the eigenfunction of A.

Card 3/3 2 Soviet and 1 foreign references are quoted.

PRESENTED: By S.L.Sobolev, Academician, 31 May 1957

SUBMITTED: 5 July 1956

AVAILABLE: Library of Congress

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Uniqueness of the solution to the inverse problem for ordinary differential operators of the order $n \geqslant 2$, and transformations of such operators. Dokl. AN SSSR 142 no.3:534-537 Ja '62. (MIRA 15:1)

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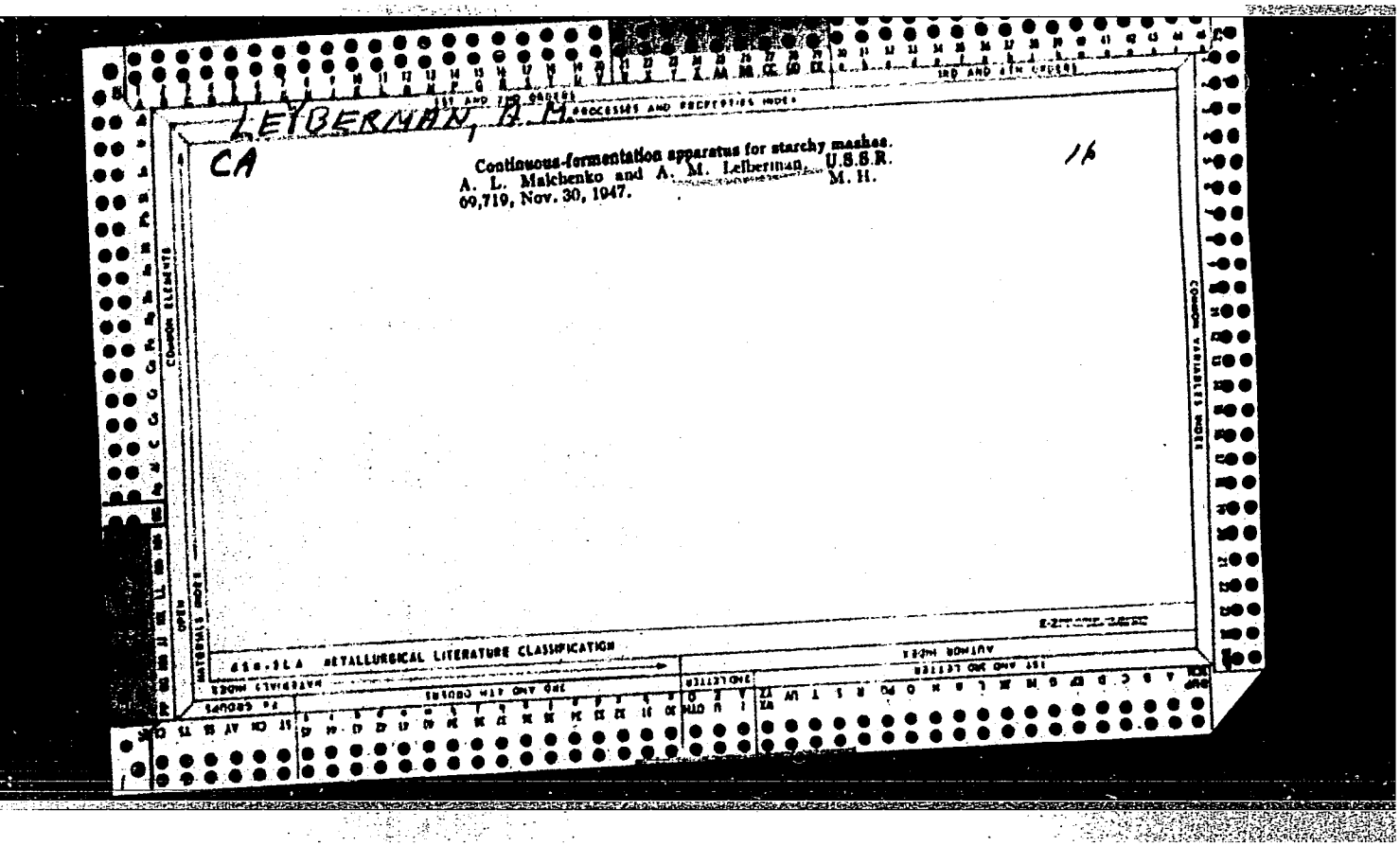
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chlortetracycline & streptomycin, catalase & dehydrogenase metab. changes (Rus))
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